

REMARKS

Claims 1-35 are pending. The Applicants have amended Claims 1, 4, 6, 7, 9, 11, 20, 22, 23, 25, 28, 29, and 32, and have added new Claims 33-35, by this Amendment. The Examiner rejected Claims 1-3, 10-19, 26, 27, 30, and 31 for the reasons stated below. The Applicants respectfully traverse the rejections, and hereby request reconsideration, as set forth below.

Allowable Claims 4-9, 20-25, 28, 29, and 32

The Applicants note that the Examiner indicated that Claims 4-9, 20-25, 28, 29, and 32 would be allowable if rewritten in independent form. By this Amendment, the Applicants have rewritten Claims 4, 6, 7, 9, 20, 22, 23, 25, 28, 29, and 32 in independent form. Dependent Claims 5, 8, 21, and 24 each now depend from one of the rewritten independent claims. Accordingly, the Applicants request allowance of Claims 4-9, 20-25, 28, 29, and 32.

Rejection of Claims 1-3 and 10

The Examiner rejected Claims 1-3 and 10 as allegedly anticipated by United States Patent No. 7,035,291 to Grinfeld. The Applicants traverse the rejection because the Grinfeld patent does not teach every limitation of Claims 1-3 and 10. In particular, the Grinfeld patent does not teach the following combination of limitations set forth in Claim 1:

- a network traffic reception module configured to receive TCP network traffic;

- a hardware-based acceleration module configured to accelerate TCP network traffic processing in a steady state network connection, the acceleration module further configured with windowing functionality for performing flow control and congestion avoidance during TCP network traffic processing, and retransmission functionality for retransmitting packets in response to timeouts and errors as defined by a TCP network protocol; and

- a software-based processing module configured to process TCP connection sequences, termination sequences, and non-steady state TCP network traffic;

- wherein the system is adapted to be an iSCSI storage target capable of serving multiple iSCSI host initiators simultaneously.

For example, the Grinfeld patent teaches a network interface card ("NIC") that "includes a TCP hardware accelerator," but that otherwise "operates in a manner substantially similar to network interface adapters known in the art." Grinfeld Col. 6, ll. 55-60. Because NICs are adapted for

use in host devices, the device of Grinfeld would be a poor iSCSI storage target device. Accordingly, Grinfeld does not teach a system that “is adapted to be an iSCSI storage target capable of serving multiple iSCSI host initiators simultaneously,” as required by amended Claim 1. The Applicants thus submit that Claim 1 is allowable over Grinfeld.

Claims 2, 3, and 10 are dependent claims that incorporate the limitations of Claim 1 and are allowable over Grinfeld for at least the reasons set forth above for Claim 1. In addition, the Applicants submit that Claims 2, 3, and 10 are also allowable over Grinfeld in view of their other limitations. The Applicants request that the Examiner withdraw the rejection of Claims 1-3 and 10.

The limitation “*wherein the system is adapted to be an iSCSI storage target capable of serving multiple host initiators simultaneously*,” added to Claim 1 by this Amendment and included in Claims 2, 3, and 10 by dependency, is an optional feature of one embodiment of the invention. This limitation is not present in any other claim and thus does not limit any other claim.

Rejection of Claims 11-19, 26, 27, 30, and 31

The Examiner rejected Claims 11-19, 26, 27, 30, and 31 as allegedly anticipated by the Grinfeld patent. The Applicants traverse the rejection because the Grinfeld patent does not teach every limitation of Claims 11-19, 26, 27, 30, and 31. In particular, the Grinfeld patent does not teach the following combination of limitations set forth in Claim 11:

a real-time acceleration module integrated with a storage subsystem and comprising a hardware-based network protocol processing component configured to accelerate network protocol processing in a steady state network connection performing functions including acknowledgement, windowing, and retransmission; and

a non-real-time module comprising a software-based module configured to process exception aspects of network protocol processing.

For example, the Grinfeld patent teaches a network interface card (“NIC”) that “includes a TCP hardware accelerator,” but that otherwise “operates in a manner substantially similar to network interface adapters known in the art.” Grinfeld Col. 6, ll. 55-60. The Grinfeld patent does not teach “a real-time acceleration module integrated with a storage subsystem,” as required by amended Claim 11. The Applicants thus submit that Claim 11 is allowable over Grinfeld.

Claims 12-19, 26, 27, 30, and 31 are dependent claims that incorporate the limitations of Claim 11 and are allowable over Grinfeld for at least the reasons set forth above for Claim 11. In addition, the Applicants submit that Claims 12-19, 26, 27, 30, and 31 are also allowable over Grinfeld in view of their other limitations. The Applicants request that the Examiner withdraw the rejection of Claims 11-19, 26, 27, 30, and 31.

The limitation “a real-time acceleration module *integrated with a storage subsystem*,” added to Claim 11 by this Amendment and included in Claims 12-19, 26, 27, 30, 31, and 33 by dependency, is an optional feature of one embodiment of the invention. This limitation is not present in any other claim and thus does not limit any other claim. Likewise, the preamble language “*adapted for use in a storage network*,” added to the preamble of Claim 11 by this Amendment and included in Claims 12-19, 26, 27, 30, 31, and 33 by dependency, specifies an intended use for one embodiment of the invention. If this preamble language is deemed to be a claim limitation, it limits only Claims 11-19, 26, 27, 30, 31, and 33. The preamble language is not included in any other claim and thus cannot limit any other claim even if it is deemed to be a claim limitation.

New Claims 33-35

New Claims 33 and 34 are dependent claims that incorporate the limitations of Claim 1. Accordingly, Claims 33 and 34 are allowable over the Grinfeld patent at least for the reasons set forth above for Claim 1. In addition, the Grinfeld patent does not teach either “wherein the system is capable of maintaining substantially all active connections when active connections are less than about 1,024” or “wherein the system is capable of maintaining at least about 1,024 active connections.”

New Claim 35 is a dependent claim that incorporates the limitations of Claim 11. Accordingly, Claim 35 is allowable over the Grinfeld patent at least for the reasons set forth above for Claim 11. In addition, the Grinfeld patent does not teach “wherein integration of the real-time acceleration module with the storage subsystem is configured to reduce transfers across a system bus.”

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicants are not conceding in this

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application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

Co-Pending Applications of Assignee

Applicant wishes to draw the Examiner's attention to the following co-pending applications of the present application's assignee.

Serial Number	Title	Filed
10/781,341	REMOTE DIRECT MEMORY ACCESS FOR ISCSI	February 18, 2004
11/119,213	STORAGE CONTROLLER REDUNDANCY USING BI-DIRECTIONAL REFLECTIVE MEMORY CHANNEL	April 29, 2005
11/835,942	STORAGE CONTROLLER REDUNDANCY USING PACKET-BASED PROTOCOL TO TRANSMIT BUFFER DATA OVER REFLECTIVE MEMORY CHANNEL	August 8, 2007
10/781,552	NETWORK RECEIVE INTERFACE FOR HIGH BANDWIDTH HARDWARE-ACCELERATED PACKET PROCESSING	February 17, 2004
10/781,338	HARDWARE-ACCELERATED HIGH AVAILABILITY INTEGRATED NETWORKED STORAGE SYSTEM	February 17, 2004

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Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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